WHAT IS CLAIMED IS:

- 1. A process for inducing and/or accelerating at least one phase transformation in molecular solids, wherein the molecular solid is subjected to a tribochemical treatment.
- 2. The process as claimed in claim 1, wherein the phase transformation is achieved essentially by means of transmission of high mechanical energies.
- 3. The process as claimed in claim 2, wherein the phase transformation is achieved essentially by means of transmission of high kinetic energies.
- 4. The process as claimed in claim 1, wherein the transformation is to a crystalline phase.
- 5. The process as claimed in claim 1, wherein the phase transformation is induced at the interfaces of the solid.
- 6. The process as claimed in claim 1, wherein the transformation takes place between two polymorphs.
- 7. The process as claimed in one claim 1, wherein the transformation takes place from an amorphous or glasslike phase to one or more crystalline phases.
- 8. The process as claimed in claim 1, wherein a solid not present in phase-pure form is converted to a phase-pure polymorph.
- 9. The process as claimed in claim 1, wherein the solids comprise organic molecules or are of organic origin.
- 10. The process as claimed in claim 1, wherein the solids are mixtures of inorganic and organic molecules.

- 11. The process as claimed in claim 1, wherein a semicontinuous process is effected.
- 12. The process as claimed in claim 1, wherein it is effected under a defined atmosphere.
 - 13. The process as claimed in claim 1, wherein it is effected under a defined pressure.
- 14. The process as claimed in claim 1, wherein it is effected under temperature control.
- 15. The process as claimed in claim 1, wherein the solid possesses a greater density after the phase transformation.
- 16. The use of high-energy mills for performing phase transformations by a process of the claim 1.